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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,529	12/03/2003	Chiaki Ohigashi	P24646	3198

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EXAMINER	
EVANISKO, LESLIE J	
ART UNIT	**PAPER NUMBER**
2854	

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/725,529	OHIGASHI ET AL.
	Examiner	Art Unit
	Leslie J. Evanisko	2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/03/2003 & 05/31/2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,9,12,17-20 and 22-29* is/are rejected.

7)☒ Claim(s) *3-8, 10-11, 13-16, 21, and 30-31* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *03-03-2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 19-31 in the reply filed on May 31, 2005 is acknowledged. Upon further consideration by the Examiner, the previous restriction requirement dated April 28, 2005 is withdrawn and an examination of all claims 1-31 follows:

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2, 9, 12, 17-20, and 23-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Mori (US 6,737,218 B2). Mori teaches a printing plate

comprising a substrate, a hydrophilic porous layer formed on a surface of the substrate, and imaging resin being deposited on selected parts of the surface of the hydrophilic porous layer. Note that the term "porous" is defined as "having a plurality of pores" and therefore, the porous layer of Mori will inherently have a plurality of small pores or "pits" therein.

With respect to claim 2, note the pores or pits or Mori will inherently have an average diameter and the porous layer will inherently have a thickness which will inherently allow the imaging resin deposited thereon to have a required bonding strength and required thickness.

With respect to claims 9 and 12, Mori teaches the substrate comprises an aluminum base plate or a plastic film or laminations of these materials in column 24, line 33 through column 25, line 15.

With respect to claim 17, note at least some of the pits in the porous layer of Mori will extend substantially perpendicularly to a major plane of the printing plate.

With respect to claim 18, note Mori teaches applying a coating layer over the porous layer formed on the substrate to increase adhesiveness in column 24, lines 49-55.

With respect to claim 19, Mori teaches a method for making a printing plate comprising preparing a blank printing plate including a substrate and a hydrophilic porous layer formed on a surface of the substrate, applying imaging resin in substantially liquid form on selected parts of the surface of the porous

layer, and curing (i.e., heating or exposing) the imaging resin applied to the porous layer.

With respect to claims 20 and 23-24, note Mori teaches the imaging resin is applied with an inkjet recording head, is lipophilic and comprised of thermosetting resin, and is cured by applying heat to the resin in column 19, line 66 through column 20, line 14.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (US 6,737,218 B2) in view of Hase et al. (EP 0 503 621 A1). Mori ('218) teaches a method as recited with the possible exception of the imaging resin comprising UV curing resin and the curing step comprising applying radiating UV energy onto the imaging resin. Hase et al. teach a method for making a printing plate including inkjet printing photocuring ink onto a substrate including a hydrophilic layer and curing the ink by subjecting it to radiation, as shown in Figure 21 and described in column 18, lines 36-55. In view of this teaching, it would have been obvious to one of ordinary skill in the art to use a UV curing resin material as taught by Hase et al. in the method of Mori as it would simply require the obvious substitution of one known hardenable material and curing method for another to provide a hardened ink image directly to the printing plate substrate.

8. Claims 25-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (US 6,737,218 B2) in view of Nitzan et al. (US 2003/0159607 A1). Mori teaches a method for making a printing plate having all of the steps as recited, with the possible exception of the imaging resin having the particular viscosity range and % weight solvent as recited. Nitzan et al. teach a method of making a printing plate including inkjet printing imaging resin directly onto a hydrophilic surface of a substrate, wherein the imaging resin is liquid and has a viscosity in the range of 5-30 cP at room temperature (see paragraph [0044]

and [0047] in particular). In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the imaging resin of Mori to have a viscosity in the range as taught by Nitzan et al. to provide a marking fluid that is able to produce small droplets to give a high resolution while restricting spreading of the marking fluid on the hydrophilic plate.

With respect to claim 26, although Mori and Nitzan et al. are silent with respect to the particular amount of solvent used in the inkjet marking fluid composition, note Nitzan et al. teach the importance of evaporating out any water in the inkjet marking fluid and fusing the resins contained in the marking fluid to the surface of substrate in paragraph [0044]. Furthermore, note Nitzan et al. teach the importance of controlling viscosity and other rheological properties of the marking fluid in paragraph [0049]. Therefore, it would have been obvious to one of ordinary skill in the art that providing an imaging resin with a minimum amount of solvent would be beneficial in terms of speeding up curing time and providing a fluid with better resolution/performance characteristics. Furthermore, the exact optimum amount of solvent in the imaging resin could easily be determined through obvious routine experimentation. Therefore, there is no unobviousness in providing an imaging resin containing 10 % weight or less of solvent as recited.

9. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (US 6,737,218 B2) in view of Nishino et al. (US 6,143,158 B2). Mori

teaches a method for making a printing plate as recited, with the possible exception of the preparing step including the particular polishing, etching, and/or anodizing steps as recited. Note Mori teaches providing either an aluminum substrate or a lamination of aluminum with another material such as plastic film in column 24, line 33 through column 25, line 15. Furthermore, note Mori teaches subjecting the aluminum material to various types of pretreatments (anodizing, degreasing, coating, etc) to prepare the substrate and roughen or increase the adhesion ability of the surface in column 24, lines 43-60 in particular. Although Mori does not specifically teach the specific pretreatment combinations recited, note Nishino et al. teach a method of making a printing plate including providing an aluminum layer or support and subjecting the layer to such pretreatments as electrolytic polishing, anodization, and electrochemical etching is well known in the art. In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the aluminum support or layer of Mori with the particular surface pretreatments as taught by Nishino et al. as it would simply require the obvious substitution of various known pretreatment methods with other known pretreatment methods to provide a high quality support for a printing plate.

Allowable Subject Matter

10. Claims 3-8, 10-11, 13-14, 15-16, 21, and 30-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter:

With respect to claims 3-8, 15-16, 21, and 30-31, the prior art of record fails to teach or fairly suggest a printing plate and method for making the printing plate comprising all of the structure (or method steps) as recited, in combination with and particularly including, the various specific size relationships corresponding to the size of the small pits provided in the hydrophilic porous layer (in terms of average diameter of the plurality of small pits, depth of the small pits, density of small pits, or spacing between adjacent pits as recited).

With respect to claims 10-11 and 13-14, the prior art of record fails to teach or fairly suggest a printing plate and method for making the printing plate comprising all of the structure (or method steps) as recited, in combination with and particularly including, the hydrophilic porous layer consisting of an anodized layer having a thickness of 0.1 μm or more or comprising an electrochemically etched layer.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mori (US 2002/0051931 A1 and US 2003/0167950 A1), Van Aert et al. (US 6,354,209 B1), and Shah et al. (US 6,341,560 B1) each teach a lithographic plate and method of making having obvious similarities to the claimed subject matter.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Leslie J. Evanisko** whose telephone number is **(571) 272-2161**. The examiner can normally be reached on M-Th 7:30 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leslie J. Evanisko
Primary Examiner
Art Unit 2854

lje
September 6, 2005